**Abstract of the Disclosure**

Aggregation queries are performed by first identifying outlier values, aggregating the outlier values, and sampling the remaining data after pruning the outlier values. The sampled data is extrapolated and added to the aggregated

5    outlier values to provide an estimate for each aggregation query. Outlier values are identified by selecting values outside of a selected sliding window of data having the lowest variance. An index is created for the outlier values. The outlier data is removed from the window of data, and separately aggregated. The remaining data without the outliers is then sampled in one of many known ways

10    to provide a statistically relevant sample that is then aggregated and extrapolated to provide an estimate for the remaining data. This sampled estimate is combined with the outlier aggregate to form an estimate for the entire set of data. Further methods involve the use of weighted sampling and weighted selection of outlier values for low selectivity queries, or queries having group by

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